

MAMMALOGY.—*Two new desert foxes.*<sup>1</sup> E. A. GOLDMAN, Biological Survey, U. S. Department of Agriculture.

The accession of specimens in recent years has materially extended the known range of the desert foxes of the *Vulpes macrotis* group. Forms of this section of the genus occur in suitable areas from the Pacific coast east to the basin of Great Salt Lake, Utah, and the Rio Grande Valley in New Mexico and western Texas, and from the Snake River Valley, Idaho, south to southern Lower California, Sonora, and Chihuahua. Two hitherto unrecognized geographic races are described below.

*Vulpes macrotis arizonensis*, subsp. nov.

Arizona Long-eared Desert Fox

*Type*.—From two miles south of Tule Tanks (near Mexican Boundary), Yuma County, Arizona. No. 202959, ♂ adult, U. S. National Museum (Biological Survey collection), collected by E. A. Goldman, December 9, 1913. Original number 22357.

*Distribution*.—Desert region of southwestern Arizona and adjoining parts of Sonora.

*General characters*.—A small, light buffy subspecies with short pelage lacking much of the silver white usual in the group. Skull slender and delicate. Closely allied to *Vulpes macrotis arsipus*, but usually smaller, the winter pelage shorter, brush smaller, and dorsum less heavily overlaid with silvery white; skull differing in detail. Similar in general to *V. m. neomexicana*, but decidedly smaller and dentition much lighter.

*Color*.—*Type*: Upper parts in general buffy brownish, purest on head, less pronounced along median line, paling to light ochraceous buff along flanks, the dorsum rather thinly overlaid with silvery white producing a somewhat grizzled effect; dorsal pelage with narrow subterminal white bands, and black tips so short and inconspicuous the general tone is scarcely affected; middle of face buffy grayish; chin, throat, median line of abdomen, inguinal region and inner sides of limbs nearly pure white; sides of neck, a narrow band across lower part of neck, anal region, sides of abdomen, and areas conspicuously invading upper parts behind shoulders light ochraceous buff; outer sides of forearms and hind legs, and external base of ears rich ochraceous tawny; feet whitish, the hind feet becoming light ochraceous buff on soles; sides of muzzle and lips, except anteriorly, dusky; outer sides of ears buffy-brownish, inner sides thinly clothed with white hairs; tail grayish, becoming light ochraceous buffy on basal half below, the tip black all around.

*Skull*.—Closely resembling skulls of small individuals of *arsipus*, but sides of brain-case converging in more nearly straight lines (tending more distinctly to bulge outward anteriorly in *arsipus*); interpterygoid fossa narrower; anterior processes of frontals broader, more prolonged, meeting ascending branches of premaxillae (frontal processes separated from ascending branches of premaxillae by a distinct gap along maxillo-nasal suture in *arsipus*); auditory bullae small and dentition light much as in *arsipus*. Similar

<sup>1</sup> Received April 7, 1931.

to that of *neomexicana*, but decidedly smaller, slenderer and more delicate; dentition relatively lighter.

*Measurements.*—*Type*: Total length, 784 mm.; tail vertebrae, 315; hind foot (c.u.), 120. An adult male from Vicksburg, Arizona: 765; 300; 116. An adult female topotype: 735; 270; 115. An adult female from Yuma, Arizona: 712; 270; 117.5. *Skull* (type): Greatest length, 111.5; condylobasal length, 108.4; width of braincase, 42.5; zygomatic width, 56.4; least width of rostrum, 15.4; interorbital width, 21; maxillary toothrow (front of canine to back of last molar), 52.5; upper carnassial, crown length of outer side, 10, crown width anteriorly, 4.3.

*Remarks.*—*V. m. arizonensis* is closely allied to *V. m. arsipus* from whose range it appears to be separated by the barrier of the Colorado River. It appears to intergrade with *V. m. neomexicana* in southeastern Arizona. The reduction of the white over the dorsum in the winter pelage seems to be a differential external character worthy of note.

*Specimens examined.*—Total number, 6, from Arizona as follows: Tacna, 1; Tule Tanks (type locality), 2; Yuma, 2; Vicksburg, 1.

### *Vulpes macrotis nevadensis* subsp. nov.

#### Nevada Long-eared Desert Fox

*Type.*—From Willow Creek Ranch, near Jungo, Humboldt County, Nevada. No. 213103, ♂ adult, U. S. National Museum (Biological Survey collection), collected by Mike Gill, December 14, 1915. X catalogue number 13255.

*Distribution.*—Desert regions from the Humboldt and Snake River valleys of northern Nevada and southwestern Idaho east to the basin of Great Salt Lake, Utah.

*General characters.*—A subspecies of medium size with long, full, and comparatively dark pelage. Skull with large, fully inflated braincase. Closely allied to *V. m. arsipus*, but less silvery white, the black tips of hairs more in evidence over dorsum, and cranial characters distinctive. Similar to *V. m. neomexicana*, but somewhat darker and skull different.

*Color.*—*Type*: Upper parts in general a coarsely grizzled mixture, the dorsal pelage light brown below, the individual hairs with rather broad subterminal white bands and only moderately conspicuous black tips, becoming light ochraceous buff along flanks; middle of face grayish; chin, throat, median line of abdomen, inguinal region and inner sides of limbs nearly pure white; sides of neck, a narrow band across lower part of neck, anal region and sides of abdomen light ochraceous buff; light areas behind shoulders ochraceous buffy, but rather inconspicuous; outer sides of forearms and hind legs and external base of ears rich ochraceous tawny; feet whitish, the hind feet becoming ochraceous buffy on soles; sides of muzzle and lips, except anteriorly, dusky; outer sides of ears buffy brownish, inner sides thinly clothed with white hairs; tail grayish, heavily overlaid with dusky along median line near base above, washed with light ochraceous buff below, a black tip doubtless present in life, broken off.

*Skull.*—Similar to that of *arsipus*, but broader, more robust; braincase larger, more fully inflated; nasals usually broader, more abruptly tapering posteriorly; dentition similar; auditory bullae small as in *arsipus*. Compared with that of *neomexicana* the skull is somewhat smaller, but relatively broader; braincase broader, more fully inflated; auditory bullae smaller; dentition similar.

*Measurements* (no body measurements available).—*Skull* (type): Greatest length, 113.7; condylobasal length, 110; width of braincase, 45.6; zygomatic width, 62.8; least width of rostrum, 17; interorbital width, 22.5; maxillary toothrow (front of canine to back of last molar), 52.8; upper carnassial, crown length of outer side, 9.7, crown width anteriorly, 4.6.

*Remarks*.—The range of *V. m. nevadensis* marks the northern limit of the *V. macrotis* group. This subspecies is most closely allied to *V. m. arsipus* but is somewhat darker, less silvery whitish in color of upper parts and the skull is distinguished by the larger, more fully inflated braincase.

*Specimens examined*.—Total number, 14, as follows:

Idaho: Grandview (20 miles south), 1 (skull only).

Nevada: Adelaide (near Golconda), 3 (skins only); Carson Sink (10 miles east of Fallon), 1 (skull only); Fallon (between Old River and Soda Lake), 1 (skin only); Jungo (type locality), 5 (4 skins only); Sodaville, 1 (skin only); Sulphur Cow Creek, Humboldt County, 1 (skin only).

Utah: Low, 2.

MAMMALOGY.—*Bats from the Bahamas*.<sup>1</sup> H. HAROLD SHAMEL, U. S. National Museum. (Communicated by JOHN B. REESIDE, JR.)

An interesting collection of bats was made during the summer of 1930 in the Bahama Islands by Dr. Paul Bartsch, Curator of the Division of Mollusks in the U. S. National Museum. These specimens, 98 in number, are from islands hitherto unrepresented by any mammals in the national collection.

#### ARTIBEUS JAMAICENSIS PARVIPES (Rehn)

1902. *Artibeus parvipes* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 54, p. 639. December 8, 1902.

Twenty-four specimens were taken on Great Inagua Island and four specimens at Abrahams Hill, Mariguana Island. This bat has hitherto been known only from the island of Cuba. Its capture in the Bahama Islands bears out, in part, a belief of Andersen,<sup>2</sup> the recent reviser of this genus, who said he believed that it would be found throughout the Bahamas and as far north as southern Florida.

#### MACROTUS WATERHOUSII COMPRESSUS (Rehn)

1904. *Macrotus waterhousii compressus* Rehn, Proc. Acad. Nat. Sci. Philadelphia, vol. 56, p. 434. June 30, 1904.

Three specimens collected at Salt Point, Jamaica Bay, Acklin Island. The specimens are perfectly typical of, and match in every detail those from the Island of New Providence, the type locality, and from Nassau Island, the only two known localities for this bat.

<sup>1</sup> Published by permission of the Secretary of the Smithsonian Institution. Received April 23, 1931.

<sup>2</sup> K. ANDERSEN. *A monograph of the Cheiroptera genera Uroderma, Enchisthenes, and Artibeus*. Proc. Zool. Soc. London, p. 262, 1908.